

MARITIME HERITAGE MINNESOTA

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Minnesota Suburban Lakes Survey Project: Lake Sylvia Survey Report



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Acknowledgments

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Front Cover: Annandale Conservation Club ca 1960; Camp Ahiti 1953, 5; White 1919. Digitized by MHM.

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Introduction

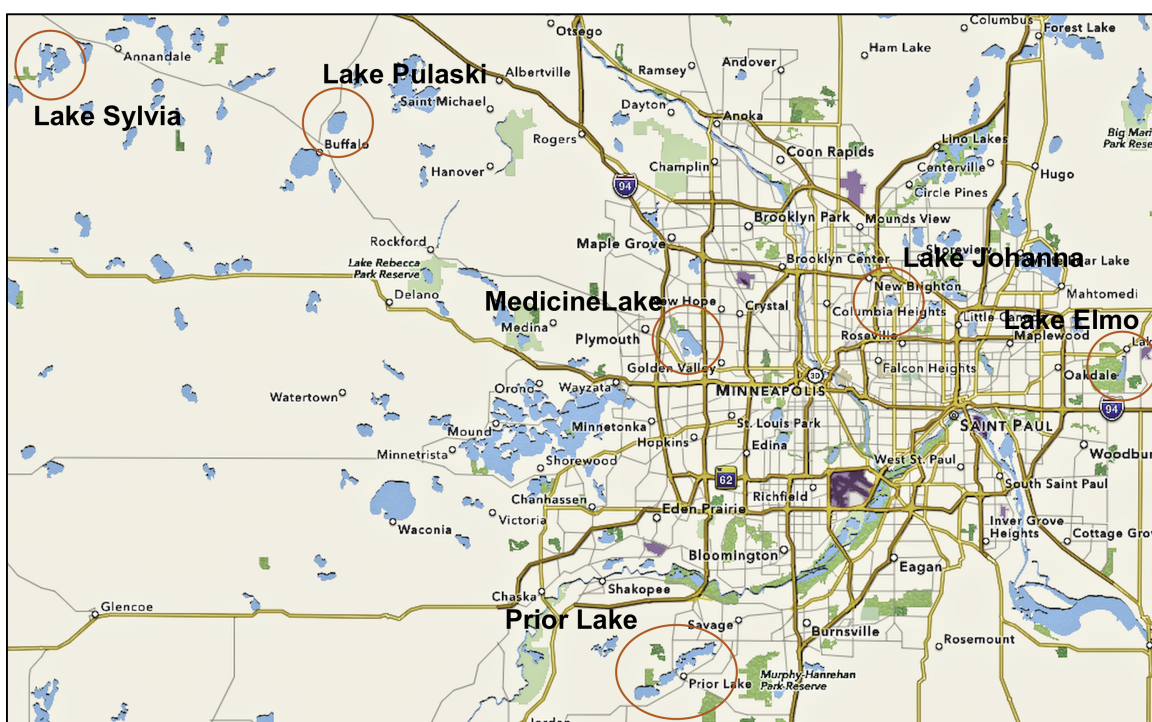
Wrecks and the artifacts associated with them tell a story. Removing or otherwise disturbing artifacts, treating them as commodities that can be sold, obliterates that story. Nautical archaeological and maritime sites are finite, and are significant submerged cultural resources. Nautical, maritime, underwater, maritime terrestrial – Maritime Heritage Minnesota's (MHM) deals with all of these types of sites throughout the State of Minnesota. MHM's Mission is to document, conserve, preserve, and when necessary, excavate these finite cultural resources where the welfare of the artifact is paramount. MHM is concerned with protecting our underwater and maritime sites – our shared Maritime History – for their own benefit in order for all Minnesotans to gain the knowledge that can be obtained through their study. MHM's study of wrecks does not include the removal of artifacts or damaging the sites in any way. MHM does not raise wrecks or 'hunt' for 'treasure'. Submerged archaeological sites in Minnesota are subject to the same State statutes as terrestrial sites: the Minnesota Field Archaeology Act (1963), Minnesota Historic Sites Act (1965), the Minnesota Historic District Act (1971), and the Minnesota Private Cemeteries Act (1976) if human remains are associated with a submerged site. Further, the case of *State v. Bollenbach* (1954) and the Federal Abandoned Shipwrecks Act of 1987 provide additional jurisdictional considerations when determining State oversight and "ownership" of resources defined by law as archaeological sites (Marken, Ollendorf, Nunnally, and Anfinson 1997, 3-4). Therefore, just like terrestrial archaeologists working for the State or with contract firms, underwater archaeologists are required to have the necessary education, appropriate credentials, and hold valid licenses from the Office of the State Archaeologist (OSA).



MHM's dive crew preparing to dive on an anomaly in Lake Minnetonka (by Mark Slick)

Preface

MHM completed remote sensing side and down imaging surveys of sections of the Headwaters Mississippi River and the Minnesota River in 2010 and 2011. MHM completed the first comprehensive sonar surveys of any Minnesota lake in 2011-2012 with the thorough investigations of Lake Minnetonka (14,528 acres), White Bear Lake (2,416 acres), and Lake Waconia (3,080 acres). The study – that is still ongoing – of these three larger lakes provided MHM the opportunity to hone the research methods and data interpretation that allowed the completion of 6 different archaeological analyses during the Minnesota Suburban Lakes Survey Project (MSLS). Lake Elmo (LE, 206 acres), Lake Johanna (LJ, 213 acres), Lake Pulaski (LP, 702 acres), Lake Sylvia (LS, 1,524 acres), Medicine Lake (ML, 886 acres), and Upper and Lower Prior Lake (PL, 1,238 acres) were chosen for study, and the fieldwork was conducted from mid-September to early October 2016. MHM prepared six project reports, one for each lake documented using sonar.

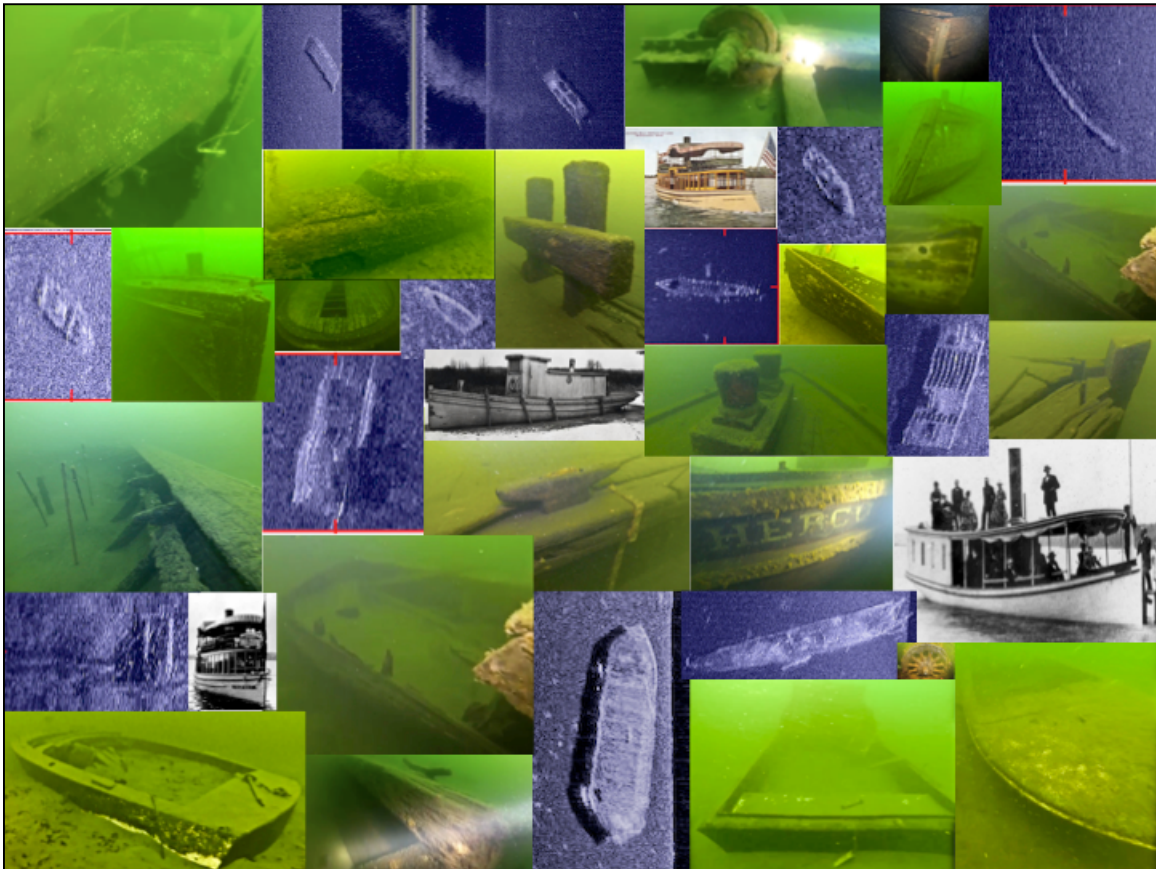


The locations of the 6 lakes surveyed during the MSLS Project.

Research Design

The MSLS Project is a pre-disturbance Phase 1 underwater archaeological side and down imaging sonar survey of 6 lakes (mentioned above) in 5 counties – Hennepin, Ramsey, Scott, Washington, and Wright. This project is a primary step toward the identification and documentation of submerged cultural resources in Minnesota. MHM

chose the six lakes mentioned above for the MSLS Project. The purpose of the MSLS Project is to increase the collective maritime archaeological and historical knowledge of Minnesotans through the documentation of the 6 suburban lakes. The specific goal of sonar survey is the recording of anomalies on the lake bottoms and identifying their possible natures. The side and down-imaging sonar unit creates high-resolution digital images; the sonar data accumulated during the fieldwork will be reviewed and analyzed with the intention of identifying anomalies that may be human-made sites such as wrecks (dugout canoes, steamers, sailboats, rowboats, canoes, barges, motorboats), maritime infrastructure (pier/dock remains, water intakes), other maritime-related artifacts (steam boilers, fish houses), vehicles (cars, trucks, snowmobiles), and other objects. In the future, the positive identification – and significance – of the anomalies will be confirmed through underwater archaeological reconnaissance fieldwork using SCUBA, digital video, measured drawings, and maritime historical research. The 6 lakes chosen for evaluation and assessment during the MSLS Project were chosen for the MSLS Project because of their size, location, and the confirmed maritime activities occurring on and around them, determined by graphic and preliminary historical research.



A sampling of nautical archaeological and underwater sites MHM has investigated and identified in Lake Minnetonka. Similar wrecks may be recorded by the sonar unit during the MSLS Project (photos by MHM volunteers Kelly Nehowig, Ed Nelson, and Mark Slick; sonar images recorded by MHM).

The combined area of the 6 lakes is 4,769 acres. All of the project lakes are under 1,600 acres, with 4 of them under 900 acres and 2 of them under 300 acres. The size of the target lakes for the MSLS Project is significant because until now, no nautical, maritime, or underwater archaeological or historical research has been conducted in what is considered a 'smaller' lake in Minnesota. MHM chose these particular smaller lakes because, like Lake Minnetonka, Lake Waconia, and White Bear Lake, they are located outside of the Twin Cities proper, but are suburban and close enough to Minneapolis and St. Paul for day or weekend trips by lake-bound Minnesotans even in the late 19th Century. Historically, these lakes had holiday resorts on their shores that allowed local residents and visitors to use them as vacation destinations. The resorts often had fleets of sailing and rowing boats for use by their guests, and in some cases, steam launches, larger boats, and personal motorboats. Furthermore, local residents used these lakes for efficient daily transportation. Therefore, maritime activities – boat transportation and recreation that required maritime infrastructure and a terrestrial transportation system (horses, streetcars, railroads, roads, cars) to function – are comparable to Lakes Minnetonka, Waconia, and White Bear on a smaller scale. The MSLS Project will be the first systematic and comprehensive remote sensing survey of a group of smaller suburban lakes that share traits with the well-known larger suburban lakes already surveyed. With this in mind, the process of recording, locating, and identifying anomalies that may be submerged cultural resources that will ultimately be investigated archaeologically using SCUBA is even more important – the maritime history and nautical/maritime/underwater archaeology of these 6 lakes are unknowns. The data collected during the MSLS Project is the first step in the process to determine the extent of submerged cultural resources located on the bottoms of these 6 suburban lakes.

Methodology

A side and down imaging remote sensing sonar survey conducted on a lake is akin to 'mowing the lawn' – transects are run either north/south or east/west depending on wind conditions, lake traffic, and the placement of obstructions such as islands, sandbars, shallow areas, docks, and piers. The length and duration of each transect cannot be known until the day of the survey and is dependent on water depth, and the presence of weeds, islands, docks, and other boats. Ideally, each transect runs north/south or east/west for orderly data analysis, but diagonal transects are often required because lakes are usually not large open squares. The GPS data received by the sonar unit's antenna is imbedded in the recording produced of each transect; this feature allows accurate and efficient anomaly location by determining its latitude and longitude. Many anomalies remain unidentified until their nature can be determined by dive reconnaissance. However, the basic nature of some anomalies can be determined by sonar data analysis with specific questions about the site or object answered using dive reconnaissance.



'Mowing the Lawn' at Lake Pulaski in 2016. Similar side and down imaging sonar survey transects were run on Prior Lake, Lake Elmo, Lake Johanna, Medicine Lake, and Lake Sylvia.

Results of the Minnesota Suburban Lakes Survey Project Lake Sylvia

Archaeology and History

Lake Sylvia is located in Southside Township in Wright County west of Annandale and northwest of Minneapolis. Initially known as Twin Lakes it is comprised of eastern and western sections. Landowner Hanford L. Gordon may have *unofficially* re-named the East Lake after his wife Sylvia in 1865; the western portion became Twin Lake. The name differs on maps over time, but West Lake *officially* remained Twin Lake until 2006, and the lake is often referred to as 'Silvia' in historical documents. On the north side of East Lake Sylvia, 60 feet above the lake on a bluff, 19 Woodland Period burial mounds were rudimentarily documented in the late 1800s. Beyond these mounds, only one recognized archaeological site (21-WR-137) has been recorded in or near Lake Sylvia. In 1961, three men from Dassel removed a dugout canoe from the eastern section of East Lake Sylvia. Found in 10 feet of water, the dugout was illegally removed from Minnesota. It now resides in Nebraska at Harold Warp's Pioneer Village. MHM has documented 13 Minnesota dugout canoes, taken samples from them, and submitted those samples for radiocarbon dating in 2014-2016¹. MHM attempted to gain permission to document and test the Lake Sylvia Dugout Canoe in Nebraska but the request was refused. Without further archaeological evidence, no definite conclusions can be drawn pertaining to the Post-Contact Native American presence around Lake Sylvia. However, it can be inferred that at different times there were Ho-Chunk (Winnebago), Dakota, and Ojibwe use of the area and its resources (Curtiss-Wedge 1915a, 38; Koenen 2003; Stark 2007; University of Minnesota, ND).

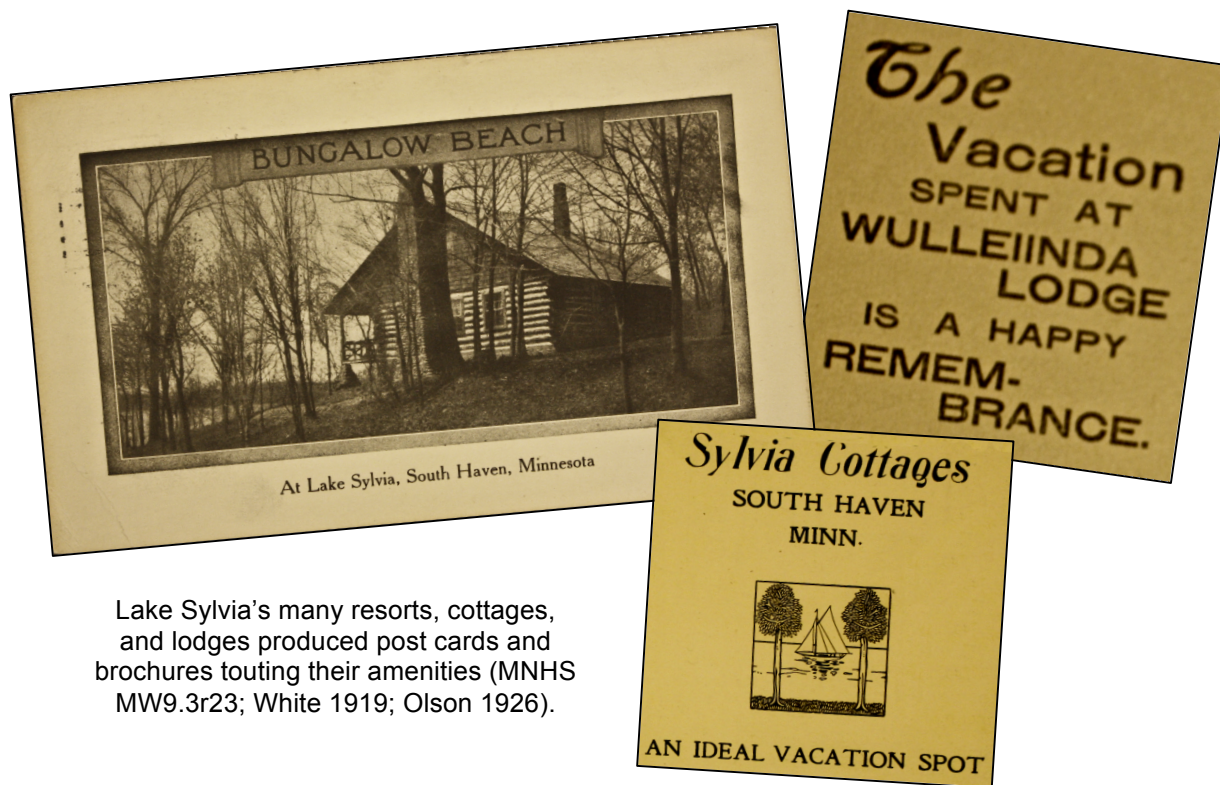


The Lake Sylvia Dugout Canoe (21-WR-137) after it was removed from the lake. Note the vintage pontoon boat next to the dugout (MNHS HE519.r2, digitized by MHM).

¹See MHM's *Minnesota Dugout Canoe 1-3 Project Reports* for more information.

With the expansion of the Minneapolis, St. Paul and Sault Ste. Marie Railway – known as the ‘Soo Line’ – through Wright County in 1886, weekend excursions and day trips from the Twin Cities to Lake Sylvia began. One noteworthy outing by Charles Comiskey², owner and manager of the St. Paul Saints minor league baseball team, and President Johnson of the Western Baseball League took a day trip on the Soo Line to Lake Sylvia for fishing. In the early 20th Century, large areas of land on the lake were sold, including 614 acres on Lake Sylvia’s shoreline, with Wright County labeled as the “banner county in the state”. This particular section of land had ½ mile on the lakeshore with cultivated farmland, meadowland, pasture, and stands of timber as well, along with easy access to train service to Minneapolis (Curtiss-Wedge 1915, 227; *Minneapolis Journal* 1901; *Saint Paul Globe* 1898).

Resorts and Camps. Lake Sylvia was a resort and camp destination for Minnesotans in the late 19th Century into the middle 20th Century. The long list of vacation establishments included Bridal Beach Resort, Bryant’s and Jackpot Resorts, West Cottages, Wulleiinda Lodge, Sylvia Cottages, Cozy Comfort Camp, Bungalow Beach, Pebble Beach, Idle Hour Resort, Sylvia Cedars, and Camp Ahiti – “a private camp for girls and young women”. News of visits to Camp Ahiti were noteworthy, such as “a group of seven Northrup collegiate school girls have gone up to Camp Ahiti, Lake Sylvia, to remain until the end of the season” (Camp Ahiti ND; North West Publishing Company 1901, 25; Stark 2007; *The Tomahawk* 1922).



Lake Sylvia’s many resorts, cottages, and lodges produced post cards and brochures touting their amenities (MNHS MW9.3r23; White 1919; Olson 1926).

²Charles Comiskey moved the St. Paul Saints to Chicago; the team became the Chicago White Stockings/White Sox.

Below; The entrance to Cosy Comfort Camp on the north end of Lake Sylvia (Shofstall 1928, digitized by MHM).



Right: Scenes of West Cottages and Lake Sylvia in 1920 (MNHS MW9.1r28, digitized by MHM).



Boating and Fishing. Boating and fishing on Lake Sylvia were activities enjoyed by local inhabitants, vacationers, season-long summer residents, and day-trippers. Some anglers were law-breakers; Game Warden Andrews arrested three men in late May 1895 for taking black bass out of Lake Sylvia with a net. For the first few decades of the 20th Century, West Cottages were popular rental properties; they were advertised “by the week, month or season, at Lake Sylvia; fine fishing, boat and ice go with each cottage” (*Minneapolis Journal* 1905; *Princeton Union* 1895).



A ‘traditionally’-built sloop with a raked bow belonging to Cosy Comfort Camp. Traditionally-built boats are vessels constructed without plans or blueprints (Shofstall 1928, digitized by MHM).



Left: Fishing boats on Lake Sylvia (Annandale Conservation Club ca 1960, digitized by MHM).

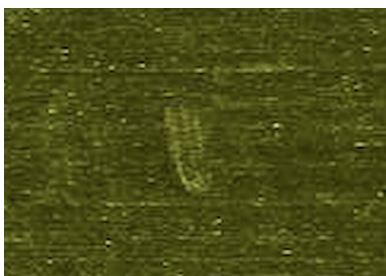
Right: Boating on Lake Sylvia in June 1919 (MNHS GV3.61r37, digitized by MHM).



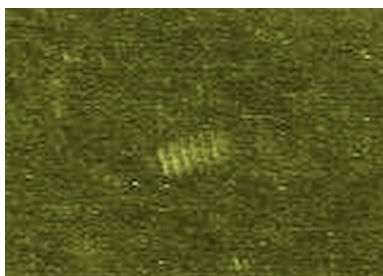
Left: West and East Lake Sylvia. MHM's sonar survey transects ran east to west on the East Lake and the northern section of the West Lake. On the southern half of the West Lake, the transects ran north to south. Note that West Lake Sylvia is referred to as Twin Lake (Department of Natural Resources 1960).

Lake Sylvia Sonar Survey Results

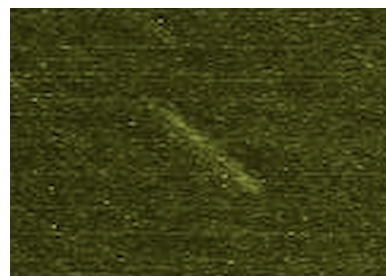
MHM has identified 52 anomalies in the sonar footage recorded during the remote sensing survey of Lake Sylvia. MHM has determined that the acoustical signatures of 8 anomalies indicate they are possible wrecks – including a barge – (A1, A2, A11, A29, A31, A37, A38, A44). Anomalies 32 and 42 are significant to Minnesota maritime and underwater archaeology, maritime history, and fishing history. They are 159 feet away from each other and may be the structures that hold or once held the ends of a poke net. Poke nets hang on poles under water and snag fish, and are well known in Scotland where they are placed in tidal zones. The Department of Natural Resources has used seines for decades to catch fish for various reasons. It is unknown who erected A32 and A42 without further research.³ One anomaly appears to be a debris field (A14), 2 anomalies are probably trees (A8, A25), and 1 is a tree stump placed on the ice that fell during ice-out (A46).⁴ Anomaly 21 may simply be a weed clump but MHM labeled it as a target because of its 37-foot depth and its placement on its own with no surrounding vegetation; further, it has a vastly different appearance in two sonar passes. Three anomalies do not appear to be a specific structure such as a wreck, but their shape suggests they are a cultural resource and might be mostly buried (A6, A7, A40). The anomalies below are in random order and the potential to provide significant nautical archaeological data are prioritized as High (1), Medium (2), or Low (3). These numbers will assist MHM when designing future nautical archaeological reconnaissance projects using SCUBA.



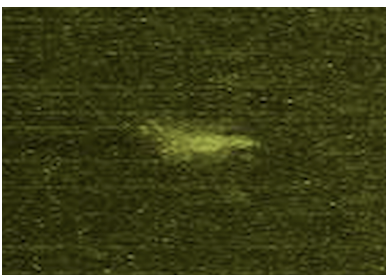
LS-A1- Possible Wreck (1)



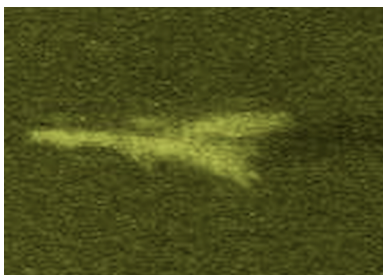
LS-A2 – Possible Wreck (1)



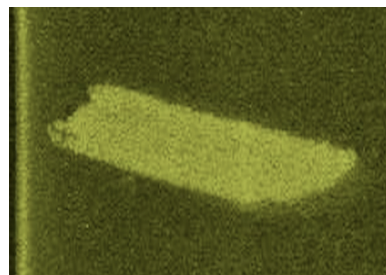
LS-A3 (3)



LS-A4 (2)



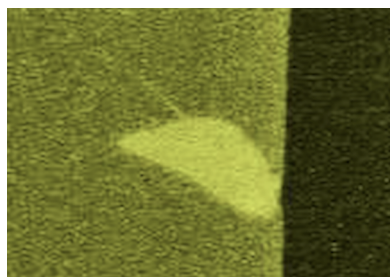
LS-A5 (2)



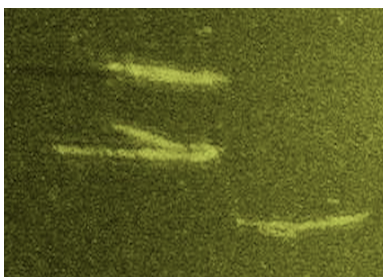
LS-A6 (1)

³Prior Lake, Medicine Lake, and Lake Johanna also contain poke nets.

⁴Anomaly 46 is over 800 feet from shore and this distance strongly suggests the stump was dragged onto ice to get rid of it. MHM has identified cut 3 tree stumps on the bottom of Lake Minnetonka.



LS-A7 (1)



LS-A8 – Probable Tree (3)



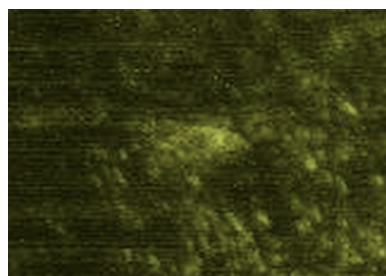
LS-A9 (1)



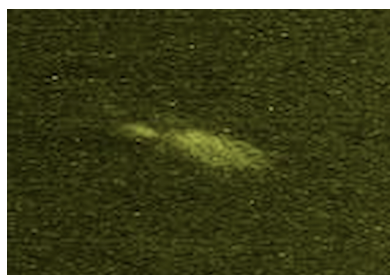
LS-A10 (2)



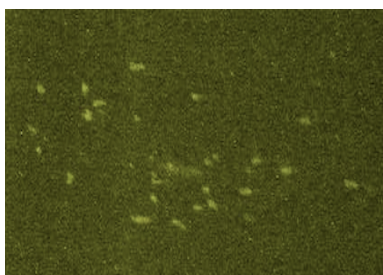
LS-A11 – Possible Wreck (1)



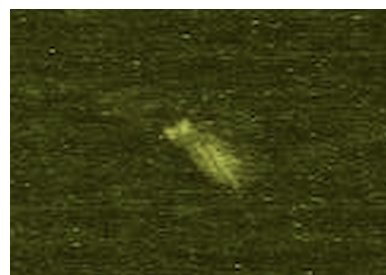
LS-A12 (2)



LS-A13 (3)



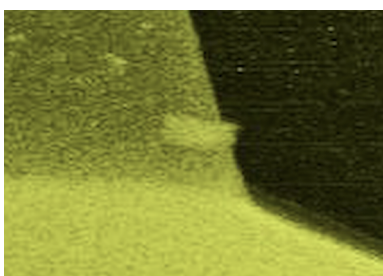
LS-A14 – Debris Field (2)



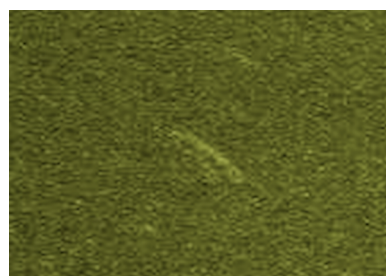
LS-A15 (1)



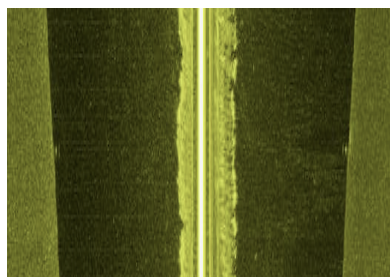
LS-A16 (1)



LS-A17 (1)



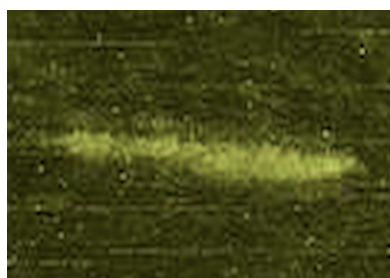
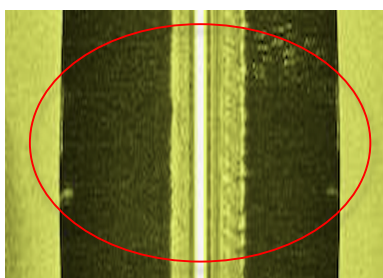
LS-A18 (1)



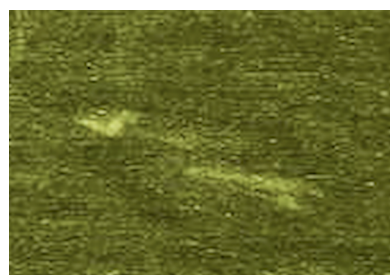
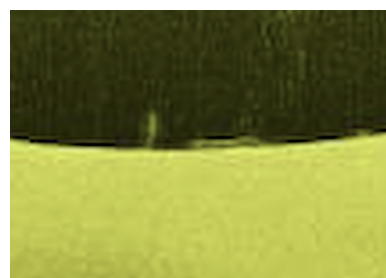
LS-A19 (1)



LS-A20 (3)

LS-A21 – Possible Weed Clump
(2)LS-A21 – Possible Weed Clump
(2)

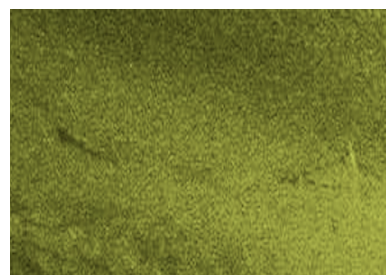
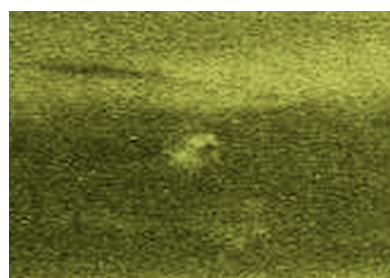
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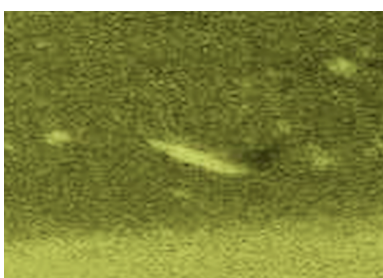
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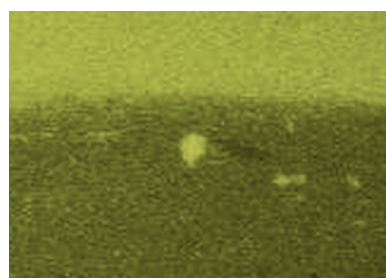
LS-A24 (1)

LS-A25 – Possible Partially
Buried Tree (3)

LS-A26 (2)



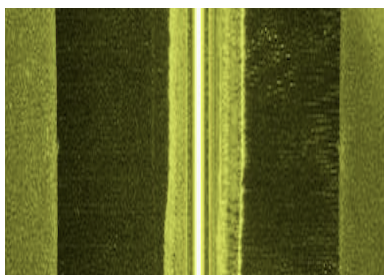
LS-A27 (3)



LS-A28 (3)



LS-A29 – Possible Wreck (1)



LM-A30 (3)



LM-A31 – Possible Wreck (1)



LS-A32 & LS-A42 – Poke Net
(1)



LS-A33 (1)



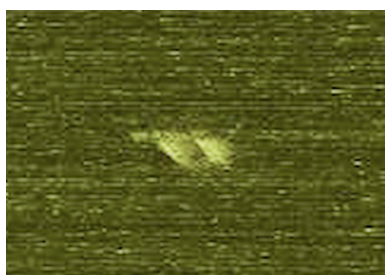
LS-A34 (1)



LS-A35 (3)



LS-A36 (1)



LS-A37 (1) – Possible Wreck



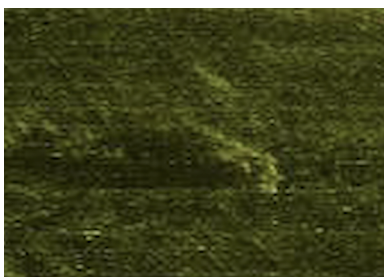
LS-A38 – Possible Wreck (1)



LS-A39 (3)



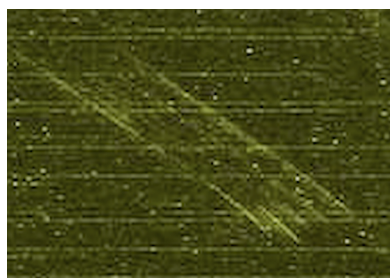
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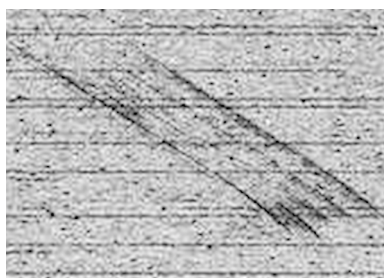
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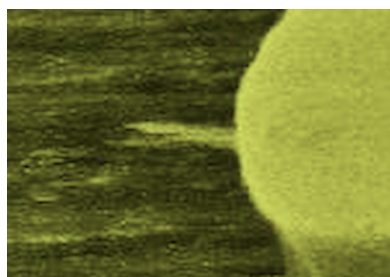
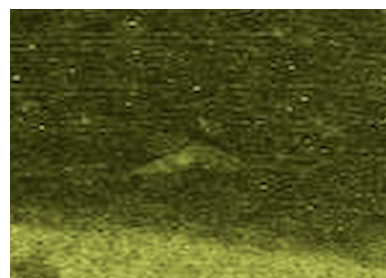
LS-A43 (3)



LS-A44 – Possible Partially Buried Barge (1)



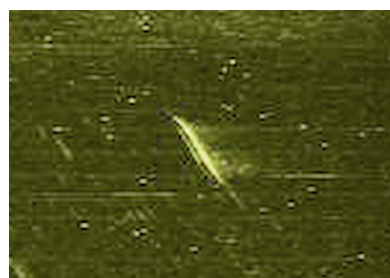
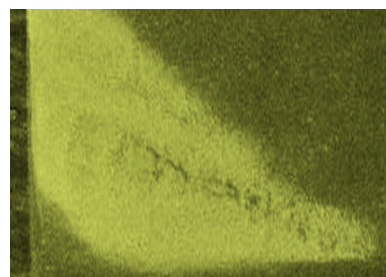
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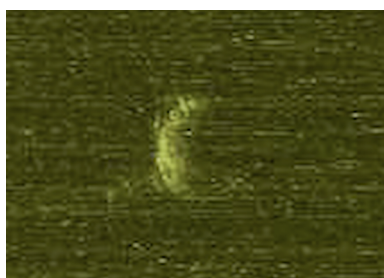
LS-A46 – Tree Stump (2)



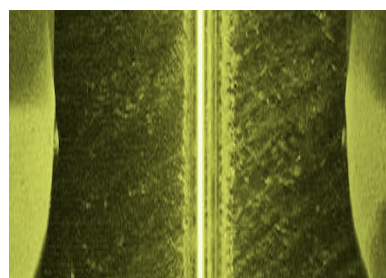
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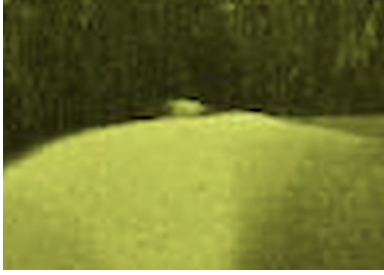
LS-A48 (1)



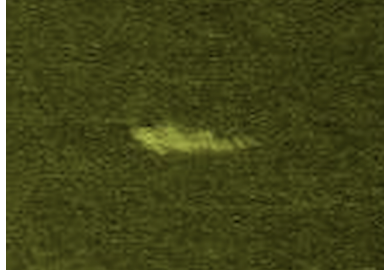
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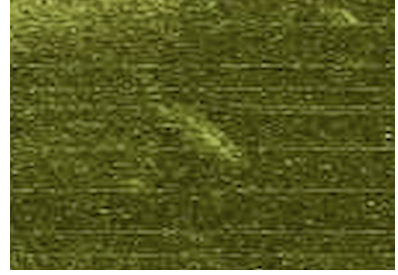
LS-A50 (1)



LS-A50 (1)



LS-A51 (3)



LS-A52 (1)



A poke net for tidal salmon fishing in Scotland.

Conclusion

During the Lake Sylvia Sonar Survey, MHM recorded several interesting and promising anomalies using remote sensing side and down-imaging sonar. Of the 52 anomalies, A1, A11, A31, A37, A44, and A32/A42 will produce the greatest amount of archaeological data. In particular, the poke net (A32, A42) will greatly enhance our shared knowledge of Minnesota's maritime and fishing history. In broader terms, the MSLS Project produced interesting and significant results; MHM recognized 253 anomalies on the bottom of the 6 lakes documented during the surveys. Particularly important is the identification of 13 wrecks through their distinctive sonar signatures, another 22 possible wrecks, 5 poke nets, 5 boat lifts/canopies, and many other maritime sites. The exact nature of the wrecks and other sites will be determined during subsequent projects centered on their investigation by nautical archaeologists using SCUBA. These future studies will greatly enhance our shared maritime history through the recognition of submerged cultural resources and the stories behind their construction and disposition on the bottom of these particular 6 Minnesota lakes. The diversity of nautical, maritime, and underwater sites so far identified by MHM in Minnesota's lakes are tangible examples of the rich maritime history of the area. Through research, diving on wrecks and anomalies to collect pertinent data, and

ensuring that the collected information is accessible by the public, MHM will continue to investigate Minnesota's submerged cultural resources into the future. The results of the Lake Sylvia Sonar Survey and the MSLS Project summarized above are connected to all the work that will come after its completion. It is clear – even through this Phase 1 remote sensing survey – that the types of sites that exist in the 6 small lakes documented during the project are diverse, archaeologically and historically significant, and worthy of great attention.

References

- Annandale Conservation Club. ca 1960. *Come to Annandale Minnesota A Fisherman's Paradise*. Pamphlet Collection, Minnesota Historical Society: St. Paul, MN.
- Camp Ahiti. ND. *Camp Ahiti in Program and Scene*. Pamphlet Collection, Minnesota Historical Society: St. Paul, MN.
- _____. 1953. *Camp Ahiti in Program and Scene*. Pamphlet Collection, Minnesota Historical Society: St. Paul, MN.
- Curtiss-Wedge, Franklyn. 1915. *History of Wright County, Minnesota*. Vol. II. H.C. Cooper, Jr. & Company: Chicago, IL.
- Department of Natural Resources. 1960. *Twin Lake and Lake Sylvia*. Division of Game and Fish. Department of Administration: St. Paul, MN.
- Koenen, Bruce. 2003. *Danielson-Lake Sylvia Archaeological Site Form, 21-ME-37*. On file, Office of the State Archaeologist, St. Paul, MN.
- Marken, M.W., A. Ollendorf, P. Nunnally, and S. Anfinson. 1997. *Beneath Minnesota Waters: Minnesota's Submerged Cultural Resources Preservation Plan*. Summit Envirosolutions, Inc. and Braun Intertec, St. Paul. Report prepared for the State Historic Preservation Office, Minnesota Historical Society: St. Paul, MN.
- Minneapolis Journal*. 1901, 24 June; 1905, 8 April.
- Minnesota Historical Society. Photograph Collection. St. Paul, MN.
- North West Publishing Company. 1901. *Wright County, Minnesota Plat Book*. North West Publishing Co.: Minneapolis, MN.
- Princeton Union*. 1895, 6 June.
- Saint Paul Globe*. 1898, 11 June.
- Shofstall, F. H. 1928. *Cosy Comfort Camp*. Pamphlet Collection, Minnesota Historical Society: St. Paul, MN.
- Stark, Jim. 2007. History of Lake Sylvia. <http://www.annandaleonline.com/History/HistoryClub/Programs/JStark-LkSylvia-11-5-07.htm>
- Tomahawk, The*. 1922, 7 September.
- University of Minnesota. ND. *Site 21-WR-35*. Archaeological Site Survey, Department of Anthropology: Minneapolis, MN.

White, J. C. 1919. *Wulleiinda Lodge-The Camp of Good Cheer*. Pamphlet Collection, Minnesota Historical Society: St. Paul, MN.